

REMARKS

Claims 1, 31, and 32 have been amended.

Rejections under 35 U.S.C. 102

The Examiner has rejected claims 1-4, 6-13, 18, and 30-36 under 35 U.S.C. 102(e) as being anticipated by Benke et al. (U.S. Patent 6,528,797 B1). These rejections are respectfully traversed.

The method of the present application is concerned with studying a field of view. In relation to the consideration of a single field of view, the method operates as follows. As shown in figure 2, the shielding 22 around the detector 20 defines the field of view 26. Emissions from sources (A & B) within the field of view 26 may travel uninterrupted from the source to the detector. Emissions outside the field of view are interrupted by shielding 22. Two counts or count rates are then determined for that field of view. In one of the counts or count rates, no part of the instrument is inside the field of view; the movable shielding component 28 is to one side away from the field of view 26. In the other count or count rate, the movable shielding component 28 is in the field of view 26; it is in this situation which is shown in figure 2 with that part 32 of the field of view 26 being obscured.

An important issue is that the field of view 26 is the same in the first and second count/count rate step. The difference comes from a part of that field of view being obscured in the second case.

If the count/count rate is higher without the movable shielding component 28 than with it, then some of the emissions come from that part of the field of view obscured in the second count/count rate step. If the count/count rate is unaltered by the movable shielding component 28 obscuring part of the field of view then none of the emissions come from the part of the field of view obscured in the second count/count rate. It is this situation which arises with figure 2 as neither of the sources A or B are obscured as neither lie in part 32 of the field of view 26. Either way, useful information is provided.

This intention for the method is reflected in claim 1. The "reference count and/or count rate" is obtained with "the movable shielding component being out of the field of view." The

"partially occluded view count and/or count rate" is obtained "for the given field of view" with "a part of the given field of view occluded by the movable shielding component".

Applicants respectfully assert that this feature is not true in Benke et al. In Benke et al., two basic options are used; a single fixed collimator with movable detector or a fixed detector with movable collimator. In either case, the different counts/count rates are taken with different fields of view.

In more detail, and in relation to the fixed collimator and movable detector designs (shown in figures 5, 6, 7, and 8c) the position is as follows. For the Examiner's reference, and to better explain Applicants' position, annotated versions of the figures from Benke et al. are attached to this response. In Benke et al. figure 5, position 1, in the first detector position, the lowest detector position A, the field of view B for the detector is defined by the shielding, which is shown as cross-hatching C. Only emissions from within field of view B can reach the detector for this first count/count rate. In the position for the second count/count rate, Benke et al., figure 5, position 2, the detector is provided at a higher detection position E. in this position the shielding C means the detector has a field of view F. A fields of view B and F are utterly different from one another. Applicants respectfully assert that they can in no way be seen as two considerations of "the given field of view." In the further detector position G, figure 5, position 3, the shielding C defines a field of view H. Again H is utterly different from that B and F.

A similar situation is true for the different detector position is shown in Benke et al. figures 6 and 7. The result is two utterly different fields of view are being considered.

In contrast to the present invention, the first and second counts do not say anything about the position of the source of emissions in field of view B. Two different fields of view are under consideration and the valuable information provided by the present invention is not obtained is prior art approach.

Once again referring to Benke et al., in more detail, and in relation to the movable collimator and fixed detector design (shown in Benke et al. figure 8a) Applicants' position is as follows. With the movable collimator in a first position, figure 8a-position 2, the shielding X defines a field of view Z. Thus the first and second count/count rates would be taken for utterly different fields of view. No consideration of "the given field of view" occurs for both count rates.

As well as the distinction on the field of view definition, there is also the statement of signal counts/count rates being determined with the "*movable shielding component being out of the field of view*" and with "*a part of the field occluded by the movable shielding component*". The movable shielding component as a result does not define the field of view. In Benke et al., a detector and a collimator are provided in each design. Only in the Benke et al. figure 8a style does the collimator move. Even then it is the component defining the field of view which moves. Thus there is no movable shielding component which can be in and out of the field of view. Wherever the collimator is in Benke et al., it is defining the field of view and so cannot be within it.

Claims 2-4, 6-13, 18, and 30-36 are all dependent, either directly or indirectly, on claim 1 and it is respectfully submitted that each is allowable for at least the same reasons as claim 1.

Rejections under 35 U.S.C. 103

The Examiner has rejected claims 5, 16, 17, 19-26, 28, and 29 under 35 U.S.C. 103(a) as being unpatentable over Benke et al.

As noted in the discussion above, Benke et al. does not disclose inventive features of independent claim 1. As such, Applicants respectfully submit that the defects of Benke et al. preclude any rejection of claims 5, 16, 17, 19-26, 28, and 29 under 35 U.S.C. 103(a) and requests that Examiner withdraw these rejections.

Further, the Examiner has rejected claims 14, 15, and 27 under 35 U.S.C. 103(a) over Benke et al. in view of Hansford et al. (US patent 5,739,845A).

The features lacking from Benke et al. in relation to claim 1 are not addressed by Hansford et al. The system in Hansford et al. is a through wall visual inspection system and so provides no assistance on radiation monitoring using a field of view and without a movable shielding component. Accordingly, Applicants respectfully request that Examiner withdraw this rejection.

Rejections under 35 U.S.C. 112, 2nd paragraph

The Examiner has rejected claims 31-35 under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 31 and 32 have been amended to address Examiner's objections. No new

matter has been added. Claims 33-35 are dependent from allowable claim 32 and are allowable for at least the same reasons as claim 32.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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